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August 15, 2003

Attention: All Prospective Proposers

Subject: Request for Proposal (RFP) No. JSL-71703 for Technology Development of Mars Landing Radar Antenna Array

Enclosed is the subject RFP for Technology Development of Mars Landing Radar Antenna Array. The Jet Propulsion Laboratory (JPL) cordially invites your organization to submit a proposal in conformance with the instructions contained herein.

JPL is in the process of designing and building a Ka-band Phased Array Terrain Radar (PATR), which will map the local topography of the Martian surface during the final stages of the landing operations for the 2009 Mars Science Laboratory (MSL). The half-meter (nominal; dimension may be as large as 0.65 meters) diameter, ten centimeter thick radar will consist of three subsystems: a 128 element antenna array, 16 sets of 8 element transmit/receive (T/R) modules with feed networks which make up a signal generating/receiving subsystem, and a data processing, timing and command subsystem. In addition to the operational components of the landing radar, the associated fixture and mounting hardware will make the system compact and durable enough so as to qualify for space flight, will be an integral part of the completed system. This RFP specifically targets the fabrication of the 128 element array subsystem, which will constitute the front portion of the terrain radar.

The antenna array will be interfaced at JPL with the active radio frequency (RF), processing and support hardware, that make up the remainder of PATR.

Resulting Contract from this RFP, will include: (1) Phase 1 for development of sixteen-element subarray, for experimental purposes, and 128 element PATR prototype array and (2) a Priced Option Phase 2 for development of a second 128 element PATR prototype array (identified under Option 1).

Anticipated future phases include development of flight qualified 128 element arrays. As such, the proposer's capability to design, fabricate and deliver flight qualified arrays will be evaluated. Evaluation of the proposer's capability to develop flight qualified arrays is not to be deemed to commit JPL to execute a contract for such effort.

All material contained in the RFP will be posted on the JPL website <http://acquisition.jpl.nasa.gov/rfp/JSL-71703>. Included on this website are the RFP, Specimen Contract, and Applicable Documents.

To facilitate the evaluation process, JPL requests the early submission of Volume 3 – Past Performance, by **September 1, 2003**. Clearly mark the outside of the package as follows:
VOLUME 3, PAST PERFORMANCE, RFP No. JSL-71703.

Note that this is a competitive procurement subject to the "Late Proposal" provisions of the RFP General Instructions. Proposals are to be received no later than **3:00 p.m.** local time on **September 12, 2003**.

All questions and correspondences related to this procurement shall be directed only to the undersigned. Questions must be submitted prior to September 8, 2003 at 12 noon pacific time in order to receive a response. Responses will be posted within a reasonable time frame on the web site below under the link entitled Addenda.

JPL appreciates your consideration of this RFP and looks forward to your response.

Sincerely,

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